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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,827

10/12/2006

Stephan Freudenstein

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EXAMINER

LE, MARK T

ART UNIT

PAPER NUMBER

3617

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,827	<b>Applicant(s)</b> FREUDENSTEIN ET AL.	
	<b>Examiner</b> MARK T. LE	<b>Art Unit</b> 3617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/2007:8/2006</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

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### DETAILED ACTION

1. In claim 14, there should be an open parenthesis before numeral 6.
2. Claims 2, 3/2, 5-6, 7/5, 8, 12-16, 18 and 19/18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2 and 18, "the points" lacks antecedent basis.

In claim 5, it is not clear as to whether "a rod" and "a second rod", recited in lines 3 and 4, refer to the same rods defined in the preceding claims.

In claims 12 and 14, the expression "in the case of ..." is indefinite because it is not clear as to whether such cases are intended to form positive limitations of the claims.

In claim 15, "the other lower booms" lacks antecedent basis.

In claim 16, line 2, "the sections" lacks antecedent basis.

The above noted problems may not be exhaustive. Applicant is suggested to thoroughly check the instant claims for similar problems and correct the same.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-2, 4, 10-18, 20-23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over German reference (DE 198 49 266) in view of Japanese reference (JP 4-97064).

The German reference discloses a fixed carriageway having features similar to that recited in the instant claims, including sleepers that have reinforcements 4 formed by a plurality of transverse and diagonal rods, a concrete carriageway panel that has reinforcements formed by longitudinal and transverse rods 8, 9. There is no indication in the German reference that these rods are to be electrically isolated from one another.

The Japanese reference discloses the uses of electrically insulating material 22, insulating spacers or clips 13, and insulating joints 14, in between the re-bars or rods to prevent direct contacts so as to prevent electrical troubles and corruptions (see the English abstract of the Japanese reference).

In view of the Japanese reference, it would have been obvious to one skilled in the art to provide electrically insulating materials or spacers, similar to that taught by the Japanese reference, in the structure of German reference in between the associated rods so as to prevent direct contact, and thus preventing electrical troubles and corruptions.

Regarding the instant claimed spacer as recited in instant claims 4 and 20-21, consider at least insulating clips 13 of the Japanese reference.

Regarding the instant claimed transverse rods forming lower booms of a grid support of a sleeper, as recited in instant claims 10, 13 and 22, consider lower the transverse rods 9 and the lower transverse rods of reinforcements 4 of the German reference, which are readable lower booms as broadly claimed.

Regarding the instant claimed insulating coating, recited in instant claims 12 and 22-23 consider insulating coating 22 of the Japanese reference.

Regarding the instant claimed lower boom having the insulating coating being at a different height position from the other lower boom, as recited in instant claim 15, consider rods 8 of the German reference which are readable as other booms that are lower than the transverse rod (the lower boom) positioned above it, as shown in Figure 1 of the German reference.

Regarding the instant claimed spacer or insulating coating being provided on only one lower boom of the grid support, as recited in instant claims 11, 14 and 27, it would have been obvious to one skilled in the art to reduce the number of clips and/or coatings to be used on the rods of the German reference so as to correspondingly reduce costs and the amount of works that have to be done to install the clips and apply the coatings on the rods, and it would have been obvious to one skilled in the art to not using such clips and/or coatings on certain rods where it is not critical to the objective of preventing electrical troubles, such as at the places where direct contacts between rods are not necessary present.

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Regarding the method steps recited in the instant method claims, note that the process of forming the structure of the German reference, as modified, is considered to require the method steps as claimed.

5. Claims 3, 19, 24-25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1, 2, 17 or 18 above, and further in view of Padrun (US 4,617,775).

Regarding the instant claimed overlapping regions of the rods being electrically insulated from one another, consider the overlapping reinforcing bars shown in Figure 1 of Padrun that are connected together by plastic clips 13, 14. In view of Padrun, it would have been obvious to one skilled in the art to form the longitudinal rods of the German references by using a plurality of shorter reinforcing bars and connecting them in an overlapping manner by plastic clips, in a manner similar to that taught by Padrun, because shorter rods are more widely available and more convenient to be handled.

Regarding the method steps recited in the instant method claims, note that the process of forming the structure of the German reference, as modified, is considered to require the method steps as claimed.

6. Claims 4-9 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 or 2 above, and further in view of Bechtel (US 5,371,991).

Regarding the instant claimed spacer as recited in the instant claims, consider plastic spacers 20 having clips 20,22 of Bechtel that are designed to connect longitudinal and transverse re-bars together. It is noted that clips 13 of the Japanese

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reference or of the German reference, as modified in view of the Japanese reference, are not clear shown in the German reference; therefore, it would have been obvious to one skilled in the art to use similar clips made of an electrically insulating material, such as that similar to the plastic clips 20 of Bechtel, as the clips in the structure of the German reference, as modified, so as to achieve the same expected advantages thereof.

Regarding the instant claimed structural details of the spacer, as recited in instant claims 4-9, note spacer 20 of Bechtel, which includes all of the features of the spacer of the instant claimed invention, such as clips 20, 22 that have the shape of circle segments being offset at 90 degrees with respect to one another, and are made of a plastic material having a sufficient resiliency (see line 1, column 3 of Bechtel).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK T. LE whose telephone number is (571)272-6682. The examiner can normally be reached on Mon-Fri, between 8:15-4:45 (Teleworking).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Le/  
Primary Examiner  
Art Unit 3617

mle  
5/27/09